Webinar Series on Open Waste Burning in Asia (2022/2023)

Webinar No. 1: Practices of Open Waste Burning in Asian Cities: Challenges and Opportunities

Introduction

Open burning of Municipal Solid Waste (MSW) is a common practice, especially in developing countries with inadequate solid waste management systems (2019; Singh et al., Karunarathana et al.). Open burning is commonly practiced as the cheapest, easiest, and most sanitary means of volume reduction and disposal of combustible materials, especially for people with no access to organised waste collection services. Currently, two billion people globally have no waste collection, and the waste of over three billion more is either dumped or subject to uncontrolled burning (Circular, 2019). Moreover, open burning of MSW typically occurs under relatively low temperatures, releasing significant emissions of pollutants, such as PM (PM10, PM2.5), particulate black carbon (BC) and organic carbon (OC), and gaseous pollutants like nitrogen oxides (NOx), carbon monoxide (CO), methane (CH4) and non-methane volatile organic compounds (NMVOC) (UNEP, 2013). In addition, open burning of waste results in emissions of a wide array of potentially hazardous substances such as polyromantic hydrocarbons, mercury, arsenic, fine dust, sulfur oxides and hydrochloric acid, most of which are toxic and harmful to the environment and human health (UNITAR and UNIDO, 2019). As such, the open burning of solid waste represents one of the most significant pollution problems in developing countries. While there have been various studies on the generation of persistent organic pollutants (POPs) and other hazardous substances (UNITAR and UNIDO, 2019; BusinessWorld, 2021), there is a lack of scientific evidence on how BC emissions from open waste burning impact climate change. This requires scientific study including the quantitative assessment of such emissions. In this regard, CCET-IGES has been working with three partner cities (Padang City-Indonesia, Bago City-Myanmar & Stueng Saen City-Cambodia) in Asia to study BC emissions and related climate impacts from open waste burning.

Considering the importance of addressing the issue of open waste burning and its impacts on climate and health, CCET-IGES is planning to hold a series of webinars on the topic during 2022-2033, along with other national and international and partners. The first webinar entitled “Practices of Open Waste Burning in Asian Cities: Challenges and Opportunities” will therefore give an overview of open burning practices in Asia and share challenges and opportunities in addressing this in cities, based on the experience of the selected pilot locations. Researchers, practitioners and policy makers working in the field of waste management are invited to present and discuss open waste burning practices in their own cities. This will be followed by an engaging and constructive discussion between the panelists and participants.